



Main

Range	TeSys
Product or component type	Contactor
Product name	TeSys K
Device short name	LC1K
Device application	Control
Contactor application	Resistive load

Complementary

Utilisation category	AC-1
Poles description	4P
Power pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	690 V AC 50/60 Hz
[Ie] rated operational current	20 A (at <50 °C) AC-1 for power circuit 16 A (at <70 °C) AC-1 for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	230 V AC 50/60 Hz
Auxiliary contact composition	Without
[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	20 A (at 50 °C)
Irms rated making capacity	110 A AC conforming to NF C 63-110 110 A AC conforming to IEC 60947
Rated breaking capacity	110 A at 220...230 V conforming to IEC 60947 110 A at 380...415 V conforming to IEC 60947 110 A at 440 V conforming to IEC 60947 80 A at 500 V conforming to IEC 60947 70 A at 660...690 V conforming to IEC 60947
[Icw] rated short-time withstand current	90 A 50 °C - 1 s 85 A 50 °C - 5 s

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

	80 A 50 °C - 10 s 60 A 50 °C - 30 s 45 A 50 °C - 1 min 40 A 50 °C - 3 min 20 A 50 °C - >= 15 min
Associated fuse rating	25 A gG at <= 440 V for power circuit 25 A aM for power circuit
Average impedance	3 mOhm - lth 20 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 600 V conforming to UL 60947-4-1 Power circuit: 600 V conforming to CSA C22.2 No 60947-4-1 Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 690 V conforming to BS 5424 Power circuit: 690 V conforming to NF C 20-040 Power circuit: 750 V conforming to VDE 0110 group C
Inrush power in VA	30 VA (at 20 °C)
Hold-in power consumption in VA	4.5 VA (at 20 °C)
Heat dissipation	1.3 W
Control circuit voltage limits	Operational: 0.8...1.15 U _c (at <50 °C) Drop-out: 0.2...0.75 U _c (at <50 °C)
Connections - terminals	Screw clamp terminals 1 cable(s) 1.5...4 mm ² solid Screw clamp terminals 1 cable(s) 0.75...4 mm ² flexible without cable end Screw clamp terminals 1 cable(s) 0.34...2.5 mm ² flexible with cable end Screw clamp terminals 2 cable(s) 1.5...4 mm ² solid Screw clamp terminals 2 cable(s) 0.75...4 mm ² flexible without cable end Screw clamp terminals 2 cable(s) 0.34...1.5 mm ² flexible with cable end
Maximum operating rate	3600 cyc/h
Mounting support	Rail Plate
Tightening torque	0.8 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm 0.8 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	10...20 ms coil energisation and NO closing 5...15 ms coil energisation and NC opening 10...20 ms coil de-energisation and NO opening 15...25 ms coil de-energisation and NC closing
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	10 Mcycles
Electrical durability	0.18 Mcycles 20 A AC-1 at U _e <= 690 V
Mechanical robustness	Shocks contactor closed, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27 Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6 Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6
Height	58 mm
Width	45 mm
Depth	57 mm
Net weight	0.235 kg

Environment

Standards	BS 5424 IEC 60947 NF C 63-110 VDE 0660 EN 60335-1
Product certifications	CSA UL
IP degree of protection	IP20 conforming to VDE 0106
Protective treatment	TC conforming to IEC 60068 TC conforming to DIN 50016
Ambient air temperature for storage	-50...80 °C

Operating altitude	0...2000 m without
Flame retardance	V1 conforming to UL 94 Requirement 2 conforming to NF F 16-101 Requirement 2 conforming to NF F 16-102

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months
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